Luis Espino - Software Engineer

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Education: University of California, Irvine **June 2022**
B.S. in Computer Science: Visual Computing **GPA: 3.18** (Dean's List UC Irvine • 5 quarters)
Course Work: Software Design • Game Systems and Design • Data Management • Computer Vision & Graphics

Areas of Expertise:

Python	**Node.js**	**SQL**	**WebGL**	**Spanish Biliterate**
C/C++	**IonicJS/Angular**	**Linux**	**MatLab**	**WebDev**
JavaScript	**A-Frame**	**R**	**OpenCV**	**Agile & DevOps**
HTML/CSS	**TypeScript**	**Microsoft Office**	**Point Cloud Library**	**Data Analysis**

Work Experience:

Autonomous Vehicle Operator: Zoox **October 2022-Present**
Conduct **quality testing** on L3 **ADAS** autonomous vehicles, ensuring optimal performance. Expertise in utilizing **Linux Shell** to execute scripts for software **deployments** and hardware **troubleshooting**, resolving system malfunctions during testing. Maintain **documentation** of un/successful outcomes, along with records of vehicle performance.

Instructor: Juni Learning **April 2022-October 2022**
Taught K-12 students computer science concepts using **Python** through engaging one-on-one remote sessions.

Office Intern: San Mateo County Health Clinic **June 2018-September 2018**
Served as a professional front desk attendant and demonstrated excellence in visit facilitation, personal information updates, and administrative duties, including phone/fax management, and waiting room care.

Projects:

Water Simulator **April 2022-June 2022**
Developed an interactive **WebGL** animation that simulates a water pond with 3D objects that interact with it, featuring realistic lighting and visual effects.

- Introduced visual properties, (**Blinn-Phong, reflection, and fresnel effect**) to enhance realism on the shader.
- Adapted the simulation into a webpage using **JavaScript** and **HTML**, making it available for public interaction.
- Conducted in-depth research on water behavior and implemented equivalent motions in **WebGL**, resulting in an accurate and engaging simulation.

Image Recognition Software **January 2022-February 2022**
Produced an **AI** algorithm that utilizes positive and negative picture samples to learn an object's Histogram of Gradient Orientations, allowing for the identification of objects in images.

- Implemented the algorithm for learning an object's features from sample images.
- Composed the software on a **Jupyter** notebook utilizing **Python**, **Matplotlib**, and **Numpy** libraries, achieving a success rate of 95% in recognizing specific objects in pictures.
- Conducted extensive testing, debugging, and finalization to ensure optimal performance and functionality of the software.

Spotify Browser **February 2022**
Assembled a real-time search **website** using **Angular** that enables users to search for music on Spotify by artist, album, or track. The search results are displayed with corresponding metadata and linked to the relevant Spotify page.

- Developed a responsive webpage using **Angular** to browse and search for music on Spotify's **API**, allowing for real-time searches and custom page creation based on user queries.
- Created engaging front-end features using **HTML, CSS**, and **Angular** components to improve the user experience and interaction with the music search engine.
- Built a secure back-end **API** using **Express.js** and **OAuth** protocol to handle user search requests, ensuring efficient and secure data retrieval from Spotify's database.
- Utilized responsive design **Bootstrap** libraries to ensure optimal performance and seamless user experience across various devices, including **desktop** and **mobile**.

Vaccine Dash (Videogame) Website **September 2021-December 2021**
Collaborated on a single-player adventure horror web game, tasking players with finding vaccines in a dark, covid-ridden hospital.

- Orchestrated game mechanics and sensory elements (sound and graphics), optimizing the player experience.
- Designed and implemented game narrative, enhancing player immersion.
- Presented game in a mock product pitch, showcasing key features and potential for marketability.